

**CLAIMS**

What is claimed is:

- 5           1. A polynucleotide comprising a sequence encoding an engineered zinc finger protein, the engineered zinc finger protein comprising 3 or more 2-finger zinc finger modules, wherein the 2-finger zinc finger modules are joined to each other by linkers of 6 or more amino acid residues, and further wherein the engineered zinc finger protein specifically binds to a target site in cellular chromatin such that expression of a single  
10   gene is regulated.
2. The polynucleotide of claim 1, wherein the target site comprises 18 base pairs
3. The polynucleotide of any of the preceding claims, further comprising a  
15   sequence encoding at least one functional domain.
4. The polynucleotide of claim 3, wherein the functional domain comprises a transcriptional activation domain.
- 20           5. The polynucleotide of claim 3, wherein the functional domain comprises a transcriptional repression domain.
6. The polynucleotide of claim 3, wherein the functional domain comprises a  
25   nuclease domain.
7. A polypeptide encoded by any of the polynucleotides of any of the preceding claims.
8. A method of modulating expression of a single gene in a cell; the method  
30   comprising the steps of:  
          administering a polynucleotide according to any one of claims 1-6 or a polypeptide according to claim 7 to the cell under conditions such that the zinc finger

protein binds to the target site in the cell, thereby modulating expression of the single gene.

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9. The method of claim 8, wherein expression of the single gene is repressed.

10. The method of claim 8, wherein expression of the single gene is activated.